Available online at www.sciencedirect.com
ScienceDirect
Procedia Social and Behavioral Sciences 15 (2011) 2947–2951
Procedia
Social and Behavioral Sciences

WCES-2011

Using Mobile Phones in Language Learning/Teaching

Masoud Hashemi [a] *, Babak Ghasemi [b]

[a]Faculty Member , Islamic Azad University , Toyserkan Branch, 6581948[illegible]Iran
[b]Young Researchers'Club , Islamic Azad University , Toyserkan Branch , 65[illegible]8456,

Abstract

Mobile phones are one of the most successful technologies of the past two decades . Mo[illegible]d more educators are using them as an educational tool. Language learners are day by day more motivated [illegible]be individua[illegible]d learning needs, not only those arising from greater mobility and frequent travel. Many researche[illegible]ave argued that m[illegible]ile devices are appropriate for supporting social contacts and collaborative learning opportunities. I[illegible]ractivity in the classroom is reported to promote a more active learning environment, facilitate the building of learning co[illegible]unities, pro[illegible] greater feedback for lecturers, and help student motivation. Allowing the use of primarily social technolog[illegible]ch as ins[illegible] messaging or mobile phones can focus student attention away from the classroom (Roschelle, 2003; Peck, B., D[illegible]C., & [illegible]ckhausen, L. (2010)), acting as an 'intruder' and removing the lecturer's centrality in communicati[illegible]ud, 2002; [illegible], 2009). During the present paper a review of recent publications regarding Mobile-Assisted Language [illegible]ar[illegible](ALL) has been undertaken to shed light on how mobile devices will be used to support social contact and collabo[illegible]ve la[illegible]arning. Finally some useful effective directions and suggestions are presented for the future.

Keywords: Mobile Phones ; Cell Phon[illegible]Langua[illegible]rning/Teaching;

1. Introduction

The mobility [illegible]mode[illegible]learners provide a dynamic environment for learning: the mobile technology, while essential, is only [illegible]the di[illegible]ent types of technology and interaction employed. The learning experiences cross spatial, [illegible]oral a[illegible]r co[illegible]ptual borders and involve interactions with fixed technologies as well as mobile devi[illegible]We[illegible]ng the [illegible]ctions with mobile technology into the fabric of pedagogical interaction that develops a[illegible]d then[illegible]ecomes the focus of attention.(Kukulska-Hulme et al., 2009: 20). Many scholars have tried to show how [illegible]ies are concerned with traditional and innovative ways of teaching and learning, showing the applica[illegible]y of mobile learning across a wide spectrum of activity (Naismith et al.,2004; Kukulska-Hulme & Traxler, 2[illegible]) as well as highlighting the most important emerging issues (Sharples, 2006).The benefits of M-Learning in [illegible]anguage education have been widely documented (Kiernan & Aizawa, 2004, Schwienhorst, 2000, Appel, 1999). It is out of question that mobile technologies have started to make their presence felt in the field of education, as can be seen by the increasing number of publications that have appeared in recent years (e.g., Ally, 2009; Kukulska-Hulme & Traxler, 2005). It is not surprising to see how mobile technologies are gaining momentum in foreign/second language learning environments, and research on mobile learning is emerging more regularly in the CALL literature. Different types of mobile technologies such as wireless laptop computers, IPods , portable MP3 players, Personal Digital Assistants (PDAs), and electronic dictionaries are available today , although mobile

1877–0428 © 2011 Published by Elsevier Ltd. Open access under CC BY-NC-ND license.
doi:10.1016/j.sbspro.2011.04.220

phones seem to have attracted more educators as well as the learners. One of the primary reasons for the popularity of the mobile phone is the widespread infiltration of the market, particularly in Japan and the US (see Levy & Kennedy, 2005, for a discussion). This means that there is no need for the institution (or in many cases, the teacher) to provide learners with the hardware in order to incorporate a mobile learning component into their teaching context. Added to this is the fact that mobile phones are relatively inexpensive as compared with, for example, wireless laptop computers, and with functions such as Internet browsers that are available in current mobile phones, the range of possibilities of mobile phones as tools for learning increases even further. While podcasting is another area which has gained in popularity over the past few years (e.g., Ducate & Lomicka, 2009; Rosell[illegible] 2007), there are limitations in the interactivity that MP3 players can achieve, generally restricted to pla[illegible]g audio, more recently, video. In contrast, most modern mobile phones have either e-mail or Short Me[illegible]e Service (SMS) functionality, which means that information can be forwarded to and from mobile phone by te[illegible]rs or st[illegible]nts. Internet-capable mobile phones allow immediate connection to a server, which mak[illegible]t possible [illegible]le[illegible]rs to retrieve updated or specific information as they require it, and for teachers to main[illegible] detail[illegible] logs o[illegible]ess.The range of research regarding the capabilities and applications of mobile phones for l[illegible]age [illegible]aching or learning has been enormous . For example, Kiernan and Aizawa (2004) used mobile phon[illegible] to ha[illegible]arners [illegible]hange e-mails with one another in order to teach targeted structures, while Taylor and Git[illegible] (2003) re[illegible]d[illegible]ir learners to use the browser function of their phones to perform Internet searches, an[illegible]nd Kenned[illegible]2005) sent learners language learning related text notifications through SMS about what they ha[illegible]arnt during class or details of upcoming television programs they wanted the learners to watch[illegible] of these [illegible]es show various features of mobile phones (e-mail, web browsers and SMS) and picture t[illegible]potentialities of the mobile phone as an effective educational tool.

2. What is M-Learning ?

Although the term mobile learning or M-Learning [illegible] int[illegible]at the beginning of the millennium when the mobile phone became one of the major [illegible]munica[illegible]evices, M-Learning is a relatively recent innovation, enabled through advances in operating [illegible]ste[illegible]design, [illegible]wer cost hardware, and the community acceptance of mobile phone technologies (Peters 20[illegible]. Acc[illegible]ng to P[illegible]s (2005), a mobile technology device should meet three criteria: it must be capable of provid[illegible]com[illegible]nd/or information functions, be small enough to be easily carried, and be used, at leas[illegible]art o[illegible] time, without a physical connection to a fixed power source or telecommunications service[illegible]obile, to [illegible] means portable and movable. It also seems to imply personal as opposed to shared use. T[illegible]te[illegible] mobile an[illegible]ersonal are often used interchangeably, but a device may be one without necessarily being the [illegible]. (Naismith et al. 2004) The general requirements for mobile learning technologies are tha[illegible]ey should be [illegible]rples 2000):

• highly portab[illegible]o tha[illegible]ey can be available wherever the user needs to learn;
• individual, ada[illegible]the lea[illegible]'s abilities, knowledge and learning styles and designed to support personal learning [illegible]r tha[illegible]eral [illegible]k or entertainment;
• unob[illegible]sive[illegible] that t[illegible]er can capture situations and retrieve knowledge without the technology obtruding on the [illegible]ation
• av[illegible]le[illegible] enable communication with teachers, experts and peers;
• adapt[illegible]to the context of learning and the learner's evolving skills and knowledge;
• persisten[illegible] manage learning throughout a lifetime, so that the learner's personal accumulation of resources and knowledge w[illegible] be immediately accessible despite changes in technology;
• useful, suited to everyday needs for communication, reference, work and learning;
• easy to use by people with no previous experience of the technology.

Using mobile devices as learning tools is not just teaching via small, mobile devices. New mobile and context-aware technology can enable people to learn by exploring their world, in continual communication with and through technology. Mobile technology can enable conversations between learners in real and virtual worlds, such as between visitors to a museum, and visitors to its virtual counterpart. Mobile learning offers a way to extend the support of learning outside the classroom, to the conversations and interactions of everyday life (Sharples 2005).

The interactivity of mobile technologies creates new teaching and learning opportunities more suited to a constructivist approach where the device is a tool for information and direction, but the structure of the learning is created by the learner. (Peters 2005) Mobile devices can change the nature of the different and relatively stable environments to something more dynamic and alive. In situations such as at a museum or in a nature park they can work as an aid to collaborative knowledge building. (Ahonen et al. 2003) Can high-quality learning be achieved with mobile devices? A number of projects related to mobile learning found out that the use of mobile technologies can support different parts of the learning experience and interweave into learners personal knowledge, interests and learning needs (Kukulska-Hulme et al. 2009).

Experiments have shown that the opportunity to study whenever and wherever has generally i[illegible]ased moti[illegible]on to study (Leino et al. 2002). New technology offers the opportunity for children and adults t[illegible]mmunica[illegible]with teachers and fellow learners around the world, to interact with rich learning resources a[illegible]simula[illegible]enviro[illegible]ents, to call on information and knowledge when needed to solve problems and satisfy cu[illegible]sity, and to c[illegible]ersonal learning narratives' through an extended process of capturing and organizing situ[illegible]d acti[illegible]. (Sharpl[illegible]2000) To some extent, printed school books could be seen as m-learning devices. They are [illegible]ortable[illegible]nd easy to use without any previous experience. However, by combining them with mobil[illegible]hones, [illegible]also[illegible]come individual and interactive. Providing a hybrid solution that would suit the present [illegible]standing o[illegible]rning, i.e. learning materials that are easily accessed anywhere and anytime has been one o[illegible]e a[illegible]in this proje[illegible].

2.1. Mobile Phones

Currently, in line with Pęcherzewska & Knot's findings (20[illegible] concerni[illegible]m-learning in general, the majority of MALL activities appear to make use of mobile phones. Alth[illegible]h Collins[illegible]005) outlines very clearly how such activities could take advantage of what these devices offer, the[illegible]t fre[illegible]nt seem to employ text messaging for vocabulary learning (Andrews 2003, Levy & Kenn[illegible]05, McNic[illegible]005, Norbrook & Scott 2003, Pincas 2004), and quizzes and surveys (Tomorrow's Professor L[illegible]er[illegible]Norbrook & Scott 2003, Levy & Kennedy 2005, McNicol 2005). As a result of a poll that revealed[illegible]o[illegible]w[illegible]ing majority (99%) of 333 Japanese students regularly sent and received email via their[illegible]ile phon[illegible]preference to using desktop PCs or PDAs, mobile-based email has been used to promote vo[illegible]dia[illegible]learni[illegible](Thornton & Houser 2005). Students have also been encouraged to use mobile phones t[illegible]cess w[illegible]-based v[illegible]o clips explaining English idioms (Thornton & Houser 2005). Some researchers into the us[illegible]f m[illegible]language learning purposes have moved towards defining ways in which mobile device[illegible]n su[illegible]language learning communities of practice when their members are separated by distance. Peter[illegible]& Divitini[illegible]004) bring together mobility of person with the ways in which mobile devices can be used to e[illegible]o[illegible]language le[illegible]ers. For instance, they suggest, a language learner visiting a target culture (say, a 'year abroad') co[illegible]use mobile technologies to capture and share their experiences in that culture with a community [illegible]practice (e.g.[illegible]uage learners) at home. In other words, they create their own content either to satisfy their [illegible]earner[illegible]' request fo[illegible]specific information or to share material that seems to them in some way useful or rele[illegible]to th[illegible]eeds of the community of learners. This is a very different approach from that taken by Dias (2002a, 20[illegible]d City[illegible]ollege Southampton (JISC 2004); those studies asked users to create content on a media b[illegible]in resp[illegible]e to [illegible]ctivity defined by the teacher; Petersen and Divitini suggest that learners define what mate[illegible]the[illegible]eed an[illegible]te content based upon that, sharing that content via mobile devices. It is noteworthy, ho[illegible]ver, th[illegible]although Petersen & Divitini's emphasis is still on informal or "unofficial" as they term it (2004, p.1[illegible]m[illegible]ypes of activity in which they expect learners to take part - they suggest learners might share audio[illegible]video clips as well as URLs - do not include oral interaction.

Learning E[illegible]ish involves memorizing and practicing a large vocabulary and numerous grammatical structures. Vocabulary learning is a key aspect of learning English, because vocabulary comprises the basic building blocks of English sentences. For this reason many studies have attempted to improve both efficiency and performance in the learning of English vocabulary. (Chen & Chung 2008) Collins (2005) outlined a variety of content that can be developed for language learning by using mobile phones' capabilities. Some of them were waiting to become available in 2005, but today these features are present:

• *Short dialogs as conversational models*

• Read-along, recorded audio stories with the ability to follow printed text while listening to develop both listening and reading skills
• Picture dictionaries with illustrations of common objects and actions, plus audio playback of the new language and translations into users' languages
• Phrase books for travellers
• Preparation for tests
• Ability to integrate a wider variety of media, including animation and short video
• Ability to submit sound files for evaluation of pronunciation and speaking, including automated evaluation
• Establishment of learner communities for interactive learning using shared tools and content
• Ability to obtain location-specific content, using GPS technologies.

In an overview of mobile assisted language learning Kukulska-Hulme & Shield (2008) [illegible] so far very few studies include activities that support learner collaboration or communication. Another area that [illegible] mentioned to require further investigation is the ways in which different mobile technologies can be employed in different pedagogical approaches and in different more or less formal learning contexts.

Mobile learning is undergoing rapid evolution. Early generations of mobile learning projects tended to propose formally-designed activities, carefully crafted by educators and technologists, and using emerging technologies that were not yet widely accessible or well understood. Current widespread ownership of mobile and wireless devices means that learners are increasingly in a position to take the lead and engage in activities motivated by their personal needs and circumstances of use, including those arising from greater mobility and travel (Kukulska-Hulme, Traxler & Pettit, 2007; Pettit & Kukulska-Hulme, 2007). Whilst, in the past, mobile learning has often been defined in terms of its use of mobile technologies, more recent thinking has [illegible] grounded in the mobility of the learner (Sharples, 2006). Often, the informal aspects of m-learning are also emphasised (e.g. Masrahita 2003, Fallakhair et al 2007).

While it could be argued that m-learning involves the use of any portable learning materials, so includes books, audio-cassettes, audio-CDs, and portable radios and CD players, for example, m-learning usually concentrates on the most recent technologies. Trifanova et al. (2004) [illegible] define mobile devices as "...any device that is small, autonomous and unobtrusive enough to accompany us in every moment". Typically, m-learning is identified both by being available "anywhere, anytime" (Geddes 2004) and [illegible] the tools used: Mobile learning can perhaps be defined as 'any educational provision where the [illegible] dominant technologies are handheld or palmtop devices'. (Traxler 2005) For our purposes, then, mobile learning refers to learning mediated via handheld devices and available anytime, anywhere. Such learning may be formal or informal.

2 . Conclusion

Nowadays MALL is available through various modern devices including mobile phones, iPods, tablet PCs, hand-held computers, PDAs, MP3 players, Smart phones and more. Mobile Phone designers are introducing innovative means that maximize the capabilities of these new devices. The number of educators and teachers who are designing MALL Education materials is also on the rise. At the present time, MALL is not only one of the main source of language education [illegible] but also helps the learning and utilization of newly-learnt language skills. Through mobile participation in [illegible] exercises and tasks, learners are able to keep their linguistic talents sharp while reducing the risk of degradation of valuable knowledge, skills and abilities.

Keegan (2003) believes that M-Learning will provide the future of learning. MALL (Mobile Assisted Language Learning) has just started to move learners and teachers out of the classroom setting into the real world. Using mobile phones, teachers can provide a rich learning environment for learners, although there are still issues that must be considered before they can reach their full potential. Various researches suggest that collaborative speaking and listening skills could be successfully done by mobile phone capabilities.

The future of MALL(Mobile-Assisted-Language-Learning)

Various studies done in the field of MALL support that as the demand for language learning flexibility rise , the demand for Mobile Assisted Language Learning increase. With people working longer hours, the time necessary for formal, traditional classroom-based or even standard online courses will decrease. Predicted growth is reinforced by

the overall decrease in free time. Therefore , MALL will be the last solution to busy , tired students and professionals seeking to learn new languages. In near future, we can expect mobile devices to deliver better quality than is currently available among most mobile devices. It is expected that designers will capitalize on this increase in quality—designing MALL programs that employ student-focused, media-rich, flexible and collaborative learning strategies. Additionally, changes in the cost and availability of wireless service—a luxury to most in the not-too-distant past—will make MALL available to a far wider and diverse audience.

References

Cavus, N. (2009). Tha Evaluation of the Attitudes of Information Systems Students to Data and [illegible]mmuni[illegible]n Tools. *Cypriot Journal Of Educational Sciences, 2*(2). Retrieved March 8, 2011, fr[illegible] http://ww[illegible]ld[illegible]ucation-center.org/index.php/cjes/article/view/18

Collins, T. (2005). 'English Class on the air: Mobile Language Learning with Cell Phones'. [illegible]oceed[illegible]f the Fi[illegible]EEE International Conference on Advanced Learning Technologies (ICALT'05). . [illegible]essed 2[illegible] A[illegible]t 2007 from: http://csdl2.computer.org/comp/proceedings/icalt/2005/2338/00/23380402.pdf

Cui, Y. & Bull, S. (2005). 'Context and learner modelling for the mobile foreign language learner'. [illegible]n, 33: 353-367.

Dias, J. (2002a). 'Cell phones in the classroom: boon or bane?' C@llin[illegible]pan, 10 (2): 16-21. [illegible]ccessed 27th August 2007 from: http://jaltcall.org/cjo/10_2.pdf

Dias, J. (2002b). 'Cell phones in the classroom: boon or bane? Part 2'. C@llin[illegible]pan, 10 (3): [illegible]. Accessed 27th August 2007 from: http://jaltcall.org/cjo/10_3.pdf

Facer, K. (2004). 'Foreword to the Literature in Mobile Techno[illegible]Learning', [illegible]ismith et al. (eds), Futurelab report 11. Accessed 27th August 2007 from: http://www.futurelab.org.uk/resources/docum[illegible]/lit[illegible]/Mobile_Review.pdf

Fallahkair, S., Pemberton, L. & Griffiths, R. 2007. 'Development [illegible]platform ubiquitous language learning service via mobile phone and interactive television'. Journal of Computer Assiste[illegible]g, 23 (4[illegible]-325.

Geddes, S.J. (2004). Mobile learning[illegible] the [illegible]st centu[illegible] benefit to learners. Accessed 27th August 2007 from: http://knowledgetree.flexiblelearning.net.au/[illegible]06/d[illegible]ides.pdf

Kearsley, G. (2000). Le[illegible]g an[illegible] Teaching in Cyberspace. Accessed 27th August 2007 from: http://home.sprynet.com/~gkearsle[illegible]pts.htm#chap

Kukulska-Hulme, A. & Shiel[illegible]L. (20[illegible] Researching new and emerging technologies in language education. Unpublished presentation to internal Open University [illegible]INTELLEC[illegible]arch group.

McNicol, T. (20[illegible] 'Lan[illegible]age E-learni[illegible]g on the move'. Japan Media Review. Accessed 27th August 2007 from: http://ojr.org/japa[illegible]eless/1[illegible]854640.php

Naismith, L., Lonsd[illegible]R., Vavoula, G.[illegible] Sharples, M. (2004). 'Literature Review in Mobile Technologies and Learning'. Future Lab Report 11. Accessed 27th August[illegible]from:htt[illegible]ww.futurelab.org.uk/resources/documents/lit_reviews/Mobile_Review.pdf.

Norbr[illegible]H., a[illegible]cott, P. ([illegible] Motivation in mobile modern foreign language learning'. In J. Attewell, G. Da Bormida, M. Sharples, & C. Sa[illegible]mith (E[illegible]),

Ogata[illegible]Yano, [illegible]003). How Ubiquitous Computing can support Language Learning. Accessed 27th August 2007 from: http://www-yano.is.t[illegible]imau. ac.jp/ogata/clue/ogata-kest2003.pdf

Peck, B., Dea[illegible]C., & Stockhausen, L. (2010). The Tin-Man and the TAM: A Journey Into M-Learning in the Land of Aus.. *World Journal on Educational Technology, 2*(1), 16-26.

Sharples, M. (Ed.). (2006). Big issues in mobile learning. Report of a workshop by the Kaleidoscope Network of Excellence Mobile Learning Initiative, University of Nottingham, UK. Thornton, P. & Houser, C. (2005). 'Using mobile phones in English education in Japan'. Journal of Computer Assisted Learning, 21, (3): 217-228.

Trifanova, A., Knapp, J., Ronchetti, M., & Gamper, J. (2004). Mobile ELDIT: Challenges in the transitions from an e-learning to an m-learning system. Trento, Italy: University of Trento. Accessed 27th August 2007 from: http://eprints.biblio.unitn.it/archive/00000532/01/paper4911.pdf

Wikipedia (2007). Lyceum (synchronous CMC software). Online at: http://en.wikipedia.org/wiki/Lyceum_%28synchronous_CMC_software%29